

Claims

- 5 1. A method of controlling frequency selection in a wire-
less communication system in response to radar-like in-
terference signals, comprising
- 10 a) continuously or quasi-continuously monitoring and
assessing one or more frequencies with respect to the
radar-like interference signals;
- 15 b) allocating a quality parameter to each assessed
frequency, the quality parameter indicating a probab-
ility that the frequency is occupied by a radar-like in-
terference signal;
- 20 c) selecting one or more frequencies in dependence on
the allocated quality parameters; and
- d) further monitoring one or more frequencies with re-
spect to radar-like interference signals.
- 25 2. The method of claim 1,
wherein the quality parameter can assume one of a plu-
rality of pre-defined values, a first value indicating
that a frequency is occupied, a second value indicating
that a frequency is not occupied, and a third value in-
dicating that a frequency might be occupied.
- 30 3. The method according to claim 1,
wherein the quality parameter can assume any value be-
tween a lower quality border value and an upper quality
border value.
- 35

4. The method according to one of claims 1 to 3,
wherein in step c) only those frequencies are selected
to which quality parameters satisfying a threshold con-
dition are allocated.
5. The method according to one of claims 1 to 4,
wherein at least step a) is performed during a normal
transmission mode.
6. The method according to one of claims 1 to 4,
wherein at least step a) is performed prior to a normal
transmission mode.
7. The method of one of claims 1 to 6,
wherein at least step a) is performed by a separate
monitoring device (MD) in communication with at least
one of an access point (AP) and a central controller
(CC) of the wireless communication system.
8. The method of one of claims 1 to 7,
further comprising communicating the allocated quality
parameters to an access point (AP) or a central control-
ler (CC) of the same or a neighboring wireless communi-
cation system.
9. The method of one of claims 1 to 8,
wherein, if at least one of the radar-like interference
signals and other interference signals are detected in
step d), steps a) to c) are repeated.
10. The method to one of claims 1 to 9,
wherein during regular operation receive/transmit pauses
are artificially created.

11. The method of one of claims 1 to 10,
wherein step d) comprises periodically monitoring one or
more of the selected frequencies to assess an average
quality thereof.
- 5 12. The method of claim 11,
further comprising transmitting on the one or more fre-
quencies having the highest average quality.
- 10 13. The method of claim 12,
wherein after a predefined period of time the method re-
turns to step a).
- 15 14. The method of claim 13,
wherein for a specific transmission frequency the prede-
fined period of time is selected in dependence on the
quality parameter previously allocated to this transmis-
sion frequency.
- 20 15. The method of one of claims 13 or 14,
wherein the predefined period of time is selected addi-
tionally in dependence on a system traffic load or the
transmission quality of the currently used transmission
frequency.
- 25 16. The method of one of claims 1 to 15, wherein prior to
switching from a first transmission frequency to a sec-
ond transmission frequency, the second transmission fre-
quency is subjected to at least steps a) and b).
- 30 17. A computer program product comprising program code por-
tions for performing the steps of claims 1 to 16 when
the product is run on a computer.
- 35 18. The computer program product of claim 17, stored on a
computer readable recording medium.

19. A wireless communication system comprising:

5 a) a first unit for continuously or quasi-continuously monitoring and assessing one or more frequencies with respect to radar-like interference signals;

10 b) a second unit for allocating a quality parameter to each assessed frequency, the quality parameter indicating a probability that a frequency is occupied by a radar-like interference signal;

15 c) a third unit for selecting one or more frequencies in dependence on the allocated quality parameters, wherein the first unit is adapted to further monitor one or more frequencies with respect to radar-like interference signals.

20 20. The wireless communication system of claim 19, comprising a monitoring device (MD) associated with or remote from at least one of an access point (AP) or a central controller (CC), wherein the monitoring device (MD) includes at least the first unit for continuously or quasi-continuously monitoring and assessing one or more frequencies with respect to the radar-like interference signals.

25